



VERSION WITH MARKINGS TO SHOW CHANGES MADE

In The Claims:

Claims 16, 21, and 23 have been amended as follows:

16. (Twice Amended) A method of carbon monoxide hydrogenation comprising:
- (a) providing a catalyst structure in a reactor, wherein the catalyst structure comprises a porous structure having a catalyst thereon, wherein the catalyst structure comprises a pore size of at least 0.1  $\mu\text{m}$ , and wherein the catalyst structure comprises a foam, felt, wad, or combination thereof;
  - (b) passing a feed stream comprising carbon monoxide gas and hydrogen gas through the catalyst structure; and
  - (c) heating the catalyst structure to at least 200°C;
- wherein the feed stream has a residence time in the reactor of less than five seconds; and wherein a product stream is obtained that exhibits the properties of at least a 25% conversion of carbon monoxide and at most 25% selectivity toward methane.
21. (Amended) The method of claim 20 wherein the metal foam has pores that range from 20 pores per inch to 1000 pores per inch.
23. (Amended) The method of claim [22] 35 further comprising a catalyst layer deposited on the interfacial layer.